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Relationship between School Climate and Instructional Leadership with The Biology Teachers Justice

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ABSTRACT

This study aims to analyze the relationship between school climate with biology teacher justice, instructional leadership with biology teacher justice, and school climate and instructional leadership together with biology teacher justice. The design used in this research is quantitative descriptive method. The study sample was 60 biology teachers from State High Schools in Lebak Regency, Banten Province. Data collection is done using school climate instruments, instructional leadership instruments and biology teacher justice instruments. Data analysis was performed using a regression model test with a significance level of α = 0.05 and a correlation coefficient test with the Pearson Product Moment test α = 0.05. The results of the analysis show there is a positive relationship between the three variables studied. The implication of this research is the importance of being aware of the quality of the school climate, instructional leadership and realizing the importance of considering biology teacher justice.

Keywords: *Biology justice, instructional leadership, school climate*

INTRODUCTION

Education is a very essential thing to consider because it is a major factor in the formation of the human person. One of the main elements that can support success and determine the output of education, among them are teachers, where the teacher is the party who has the most intensive interaction with students. Therefore the contribution of teachers in realizing educational goals is very important.

The importance of the role of the teacher in realizing the goals of education needs to be balanced with the ability of the school to establish values that lead to high levels of teacher comfort in schools. This convenience can be formed by the existence of several factors including the state of the educational institution, support for learning activities, organizational climate, and the provision of justice in the school. Justice provisions are widely used to measure the level of work comfort, and consideration of provisions in work. Fair treatment is one of the requirements to support school effectiveness because the creation of a sense of justice can foster positive attitudes and behavior of teachers to support the achievement of educational goals (Milkovich *et al.*, 2011).

The teacher's ability to teach, educate, and be responsible for developing the qualities of students cognitively, affective and motorized, can be seen from instructional leadership. This leadership requires teachers to have behavior that is able to create a harmonious and conducive learning atmosphere in the classroom, so that the knowledge taught can be well received by students. This needs to be considered so that the teacher can assess the reasonableness of the awards received for the tasks that have been done. This means that the teacher must understand how to assess the reasonableness of the awards received from the school for the

tasks being done (Kreitner and Kinicki, 2014). The award can be in the form of the amount of salary earned, promotion, recognition of hard work, and performance appraisal that is in accordance with what should be (Robbins and Judge, 2009).

Milkovich et al. (2011) state that teachers need fair treatment distributively, procedurally fair, and interactively. According to Robbins (2009) distributive justice is the number and giving of rewards relating to reward services that are in accordance with the tasks that have been done. Distributive justice perceptions are employee benefits relative to work input, so the teacher will be motivated to solve work problems and influence satisfaction with various jobs related to outcomes such as salary, work assignments, recognition, and opportunities for progress.

According to Greenberg (2003) aspects of justice are very important in the school environment, because it creates satisfaction in work. If the teacher feels that what is received is in accordance with what is done for the school, then the organization's justice can be said to be good, while if the level of justice is low, it can lead to low teacher commitment and dissatisfaction in work. Thus the teacher will minimize the injustice in a way that risks lowering his performance, such as the behavior of delay in work, lazy to work even the desire to move to work (Riggio, 2008).

According to Schermerhorn *et al.* (2010) distributive justice, can be influenced by several factors including rewards from job demands, quality control factors and implementation of direction from leaders, as well as the atmosphere of the work environment. The work atmosphere in the school environment can arise because of the patterns of behavior or relationships between school members. The atmosphere can shape the school climate which influences the achievement of school goals and is characteristic of every school.

School climate refers to the quality and character of school life based on the norms, goals, values, and practices of leadership and organizational structures that exist in schools and influences the increasing perceptions of school citizens about justice in these schools (Lussier, 2005). Teachers who feel a positive school climate tend to feel a high level of organizational justice, while if the teacher feels a school climate that tends to be negative, the teacher cannot feel the existence of organizational justice in the school. With a good school climate and fairness, the activities of implementing educational programs can run effectively, efficiently and productively.

Based on this explanation, the research that will be studied further is about the relationship between school climate and instructional leadership with distributive justice of biology teachers at Lebak District High School.

RESEARCH METHOD

This research uses a quantitative approach, with correlational techniques, namely to see whether there is a relationship between independent variables and dependent variables. There are three variables. That is School Climate (X_1), Instructional Leadership (X_2) and Biology Teacher Justice (Y), and the research constellation describes relationships between variables.

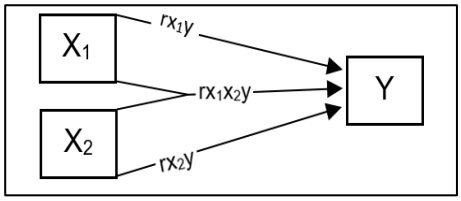

Figure 1. Research Design Relationship between X_1, X_2 and Y

This research was conducted in Lebak Regency Banten Province with using a sample of 60 Biology Teachers. The data collection techniques were using a questionnaire to measure School Climate,

Instructional Leadership and Biology Teacher Justice. The instrument grid for each variable was tested on 20 Biology Teachers of State High Schools in Pandeglang Regency, Banten Province. The instruments tested were 50 items for School Climate instruments, 50 items for Instructional Leadership instruments and 50 items for Biology Teacher Justice instruments. Furthermore, the validity and reliability tests are conducted by SPPS 20 software program.

Table 1. Grid of variable school climate instruments (Cohen, 2006)

Dimensions of school climate	Aspect	Number of Question		Total of question
		Positive question	Negative question	
Safety	Rules and Norms	1, 2*	3, 4*, 5	5
	Sense of Physical Safety	6, 7*, 8	9, 10	5
	Sense of Social-emotional Security	11,12*,	13, 14, 15	5
Teaching and Learning	Support for Learning	16, 17, 18	19*, 20	5
	Social and Civic Learning	21, 22, 23	24, 25	5
Interpersonal Relationship	Respect for Diversity	26, 27,	28, 29*, 30*	5
	Social Support from Adults	31, 32	33, 34, 35*	5
	Social Support among Students	36, 37, 38	39, 40	5
Institusional Environment	School Connectedness and society	41, 42	43, 44*, 45*	5
	Physical Surroundings	46*, 47, 48*	49*, 50*	5
Total of question				50

Description: * = Invalid Question Number

The measurement of the validity instrument is done by analyzing the relationship between the value of each item and the total value using the Pearson Product Moment formula, with a r-table ratio of 0.44. From 50 instruments that have been tested, it can be concluded that 37 instruments are valid and 13 instruments are invalid.

Table 2. Grid of instruments for Instructional Leadership variables (Hallinger dan Murphy, 1985)

Instructional leadership dimensions	Aspect	Number of Question		Total of question
		Positive question	Negative question	
Defining the school mission	Plan learning goals	1, 2, 3	4, 5	5
	Communicate objectives learning	6, 7, 8	9, 10	5
Managing the instructional programme	Supervise and evaluate learning	11, 12, 13	14, 15	5
	Coordinating the Curriculum	16, 17	18, 19, 20	5
	Monitor student progress	21, 22, 23	24*, 25	5
Promoting a positive school Learning climate	Protecting instructional time	26, 27	28*, 29, 30	5
	Maintain a high presence	31, 32*, 33	34*, 35	5
	Providing incentives for students	36, 37	38, 39*, 40	5
	Promote professional development	41, 42, 43	44, 45	5
	Providing incentives for learning	46, 47, 48	49, 50	5
Total of question				50

Description: * = Question number is invalid

The measurement of the validity of the instrument is done by analyzing the relationship between the value of each item and the total value using the Pearson Product Moment formula with a r-table ratio of 0.44. From the 50 items tested, it was concluded that 45 items were declared valid and 5 items were declared invalid.

Table 3. Grid of instruments distributive justice variables (Colquitt, 2015).

Dimension of Distributive Justice	Indicator	Number of Question		Total of question
		Positif	Negatif	
Equity	Adequacy between the effort given and the reward received	1, 2*, 3, 11,	4, 10, 14, 13*	8
	Conformity between position and responsibility	6, 15, 16, 17, 12	5, 18, 19, 20	9
	Conformity between ability and workload	7*, 8*,	9, 14, 15, 16	7
Equality	Equality of rewards and awards	22*, 27, 28, 32, 35*,31	21, 23, 30, 34, 33	11
	Equality of tasks undertaken	26*	24, 25, 29*,	4
Need	Providing appropriate benefits to employees	37, 41, 47, 48, 50,	36, 37, 44, 45,	9
	Providing appropriate awards to employees	38, 42, 46	39, 40, 43, 49	7
Total of question				50

Description: * = Question number is invalid

The measurement of the validity instrument is done by analyzing the relationship between the value of each item and the total value using the *Pearson Product Moment* formula with a r-table ratio of 0.44. Of the 50 instruments that have been tested, it was concluded that 42 instruments were declared valid and 8 items of instruments were declared invalid.

Data analysis in this study uses two tests, namely the prerequisite test and the hypothesis test. Prerequisite tests were using the Kolmogorov Smirnov normality test at a significance level of $\alpha = 0.05$. And the homogeneity test were using the Bartlett test at a significance level of $\alpha = 0.05$.

The hypothesis testing in this research was using three tests, the first is regression model test was used to determine the significance, and the linearity of the regression model using the F-Test at $\alpha = 0.05$. Second, the correlation coefficient test is used to determine the strength of the relationship by calculating the correlation coefficient (rxy) using the Pearson Product Moment formula. The three test coefficients of determination and contribution, are used to see the index or

the amount of contribution of a variable or more (independent variable) to another variable (dependent variable), calculated by the formula = rxy_2 x 100%.

RESULTS AND DISCUSSION

The results of the research obtained to find out the description of each variable are presented in a row starting from the variable School Climate (X_1), Instructional Leadership (X_2) and Biology Teacher Justice (Y).

Description of Research Results

School Climate research data conducted at the State High School throughout Lebak Regency of 60 Biology Teachers showed that the highest score was 100 and the lowest score was 71. The average school climate score of all Public High Schools in Lebak Regency was 83.47. The frequency distribution of school climate scores from all Public High Schools in Lebak Regency can be seen in Figure 2 below.

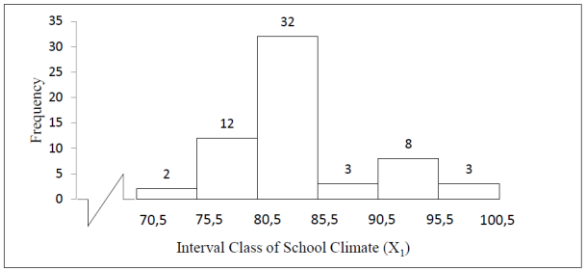

Figure 2. Frequency Distribution of School Climate Scores

While the score range of 80.5-85.5 shows the highest number of frequencies with an absolute frequency of 32 and a relative frequency of 53.34%. The highest percentage of indicators is the indicator of support for learning. This is because the support for learning practices in Lebak District High School can support the implementation of effective teaching and learning processes, besides that there is optimism and high expectations of the school community, student-centered activities, and the many academic activities held to make the school climate in Lebak District Public High School more conducive. In Cohen's opinion (2006) support for learning shows support for teaching practices such as positive and constructive responses to learning, academic challenges, individual attention and opportunities to demonstrate skills knowledge in various ways. If support for learning in a school is good, it will support the creation of a positive school climate.

Moos and Walberg (1979) state that support for learning has an important influence on learning satisfaction and personal growth / development of students, so that it can influence the creation of a good school climate. While Adejumobi (2013) suggests effective school indicators emphasize the existence of a pleasant sense of school atmosphere, one of which is supported by effective learning.

The score range of 70.5-75.5 shows the lowest number of frequencies with an absolute frequency of 2 and a relative frequency of 3.33%. The lowest percentage of school climate indicators is found in emotional and social comfort indicators. This shows that there are still some school citizens who do not feel safe from discrimination, and schools cannot guarantee teachers to be free to move, which causes a lack of harmonization in the school environment, even though emotional and social comfort factors can contribute to creating a positive school climate.

In the opinion of Kail and Cavanaugh (2000) the existence of social comfort will provide a good psychological impact for school residents and can contribute to good academic performance, thus contributing to creating a good school climate as well. While the lack of social support can cause the opposite effect. This is in line with the opinion of Adejumobi (2013) who argues that the existence of a pleasant feeling from the school atmosphere can create an internal environment that supports high student expectations, effective teacher

attitudes, and high school community and discipline.

Instructional Leadership research data conducted at the State High School throughout Lebak Regency of 60 Biology Teachers showed that the highest score was 96 and the lowest score was 61. The average instructional leadership score of all Public High Schools in Lebak district was 82.5. The frequency distribution of Instructional Leadership scores of the High School Principals in Lebak district can be seen in Figure 3 below.

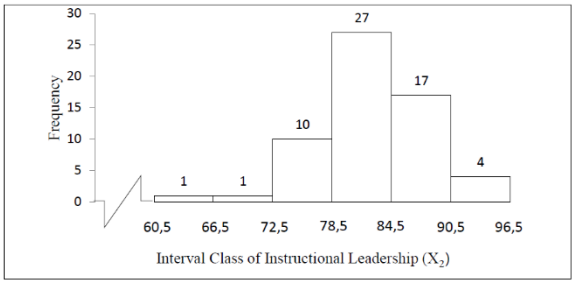

Figure 3. Frequency Distribution of Instructional Leadership Scores

While the score range 78.5-84.5 shows the highest number of frequencies with an absolute frequency of 27 and a relative frequency of 45%. The highest percentage of indicators on instructional leadership is on indicators planning learning objectives, which is equal to 10.37%, this is due to the existence of good planning of learning objectives it can be done an estimate of the things in learning that will be passed. The learning objectives planned by the teacher are not only about the potentials and development prospects of the students, but also about the obstacles and risks that may be faced. Therefore planning learning objectives is considered very important, so that it can help create instructional leadership for the better. This is supported by opinions. In addition, with the planning of school objectives, it is expected to foster direction of activities and guidelines for the implementation of activities aimed at achieving school goals.

The score range of 60.5-66.5 and 66.5-72.5 shows the lowest number of frequencies with an absolute frequency of 1 and a relative frequency of 1.67%. The lowest percentage of instructional leadership indicators is in the indicator promoting professional development, which is 9.68%. This shows that the role of the teacher as an instructional leader does not facilitate and encourage the active learning process in students. In the opinion of Bush (2011) instructional leadership is a leadership focused on teacher behavior in working with students. The influence of leadership is targeted at student learning through the teacher. Therefore good instructional leadership should provide development support for improving knowledge and skills and broadening students' competency horizons.

Distributive justice research data conducted at the State High School throughout Lebak Regency of 60 Biology Teachers showed that the highest score was 95 and the lowest score was 70. The average score of the Biology Teacher of Public High School in Lebak Regency was 82.10. The frequency distribution of the Biology Teacher Justice score of the State High School in Lebak Regency can be seen in Figure 4 below.

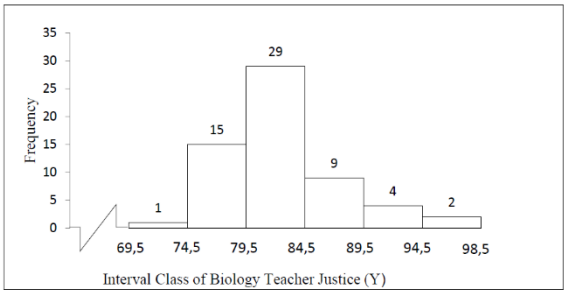

Figure 4. Distribution of Frequency of Biology Teacher Justice Score

While the score range of 79.5-84.5 shows the highest number of frequencies with an absolute frequency of 29 and a relative frequency of 48.33%. The highest percentage of indicators is the “Need” indicator, which is 34.95%. This shows that biology teachers gets the allocation of benefits based on needs. The emphasis of this perspective is that each employee has the right to receive compensation in

proportion to the level of his needs. This need is applied when the goal is to encourage personal well-being. In line with the research of Kreitner and Kinicki (2014) which states that individuals will feel fair to the treatment received in the workplace, if the individual can assess the reasonableness of the achievement (achievement) they receive for the tasks they are working on.

The score range of 69.5-74.5 shows the lowest number of frequencies with an absolute frequency of 1 and the relative frequency of 1.67%. The lowest percentage of indicators of distributive justice for biology teachers is in the equity indicator, which is 31.36%. This shows that Biology Teachers in Lebak district have not felt a consistent allocation of results, which explains that employees will get results and rewards according to the contributions they make.

Testing Requirements for Analysis

Normality Test (*Kolmogorov-Smirnov Test*)

The normality test is done by using the Kolmogorov-Smirnov test at a significance level of α = 0.05 using SPPS 20 software program. The results obtained show a significance value (ρ) of School Climate (X_1) is 0.075, a significance value (ρ) for Instructional Leadership (X_2) is 0.408 and the significance value (ρ) for the Justice of the Biology Teachers of Public High Schools in Lebak Regency (Y) is 0.062. Significance value (ρ) of the three variables is greater than α (0.05). This shows that the three groups of data are normally distributed.

Homogeneity Test (*Bartlett Test*)

Homogeneity test using the *Bartlett test* at significance level α = 0.05 using SPPS 20 software program. The results obtained show the significance value (ρ) of School Climate (X_1) with Biology Teacher Justice (Y) is 0.084, significance value (ρ) for Instructional Leadership (X_2) with Biology Teacher Justice (Y) is 0.496 and the significance value (ρ) for School Climate (X_1) and Instructional Leadership (X_2) with Biology Teacher Justice (Y) is 0.220. Significance value (ρ) of the three groups of data is greater than α (0.05). This shows that the three groups are homogeneous

Hypothesis Testing

Regression Model Test

The linearity test of the regression model used is a simple linear regression test. Based on the data obtained, the significance value is smaller than α, which is 0,000 <0.05. This shows that the regression coefficient is significant. The simple regression equation model obtained is $\hat{Y} = 49.126 + 0.395\ X_1$ (Figure 5). This shows that the model of the relationship between School Climate and Biology Teacher Justice is linear.

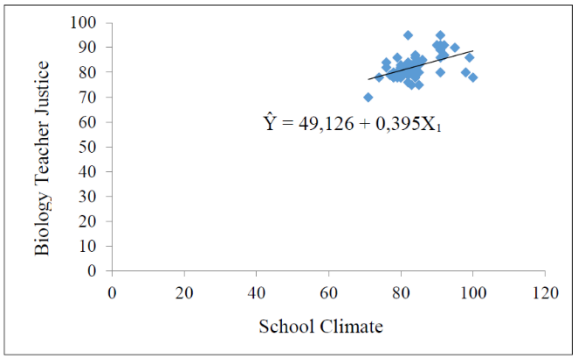

Figure 5. Simple linear regression model between School Climate (X_1) and Biology Teacher Justice (Y)

The linearity test of the regression model used is a simple linear regression test. Based on the data obtained, the significance value is smaller than α, which is 0,000 <0.05. This shows that the regression coefficient is significant. The simple regression equation model obtained is $\hat{Y} = 50,817 + 0,379\ X_2$ (Figure 6). While based on the results of the linearity test obtained a significant value smaller than α is 0,000 <0.05. This shows that the model of the relationship between Instructional Leadership and Biology Teacher Justice is linear.

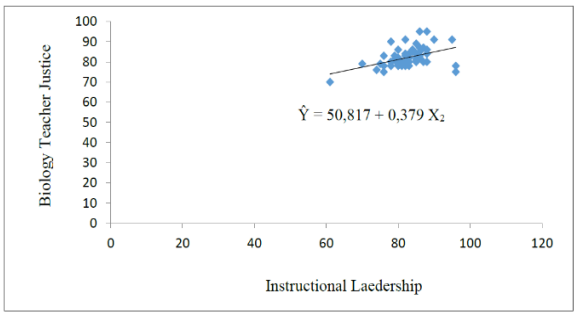

Figure 6. Simple linear regression model between Instructional Leadership (X_2) with Biology Teacher Justice (Y)

The linearity test of the regression model used is a multiple linear regression test. Based on the data obtained from the results of multiple linear regression tests, the significance value is smaller than α, which is 0,000 <0,05. Based on these data it is known that the regression coefficient is significant. The multiple regression equation model obtained is $\hat{Y} = 31.406 + 0.322\ X_1 + 0.288\ X_2$. While based on the results of the linearity test obtained a significant value smaller than alpha, which is 0,000 <0,05. This shows that the model of the relationship between School Climate and Instructional Leadership together with Biology Teacher Justice is linear

Correlation Coefficient Test

The correlation coefficient test used is the correlation test using the *Pearson Product Moment* formula. Based on the calculation, it was found that the correlation coefficient (rx_1y) between School Climate (X_1) and Biology Teacher Justice (Y) was 0.493. The data shows that the state of a good school climate will have implications for the increasing Justice of Teachers who are in the school. This study proves the previous research conducted by Lussier (2005) which states that a good school climate has an effect on increasing perceptions of school citizens towards justice in the school. In addition, Buluc and Gunes (2014) state that there is a positive relationship between the school climate in the school environment and organizational justice in the school environment.

Teachers who feel a positive school climate tend to feel a high level of organizational justice, while if the teacher feels a school climate that tends to be negative, the teacher cannot feel the existence of organizational justice in the school. With a good school climate and justice, the activities of implementing educational programs can run effectively, efficiently and productively (Lussier, 2005).

The correlation coefficient (rx_2y) between Instructional Leadership (X_2) and Biology Teacher Justice (Y) is 0.45. The value of $rx_2y = 0.449$. thus proving that there is a positive relationship between instructional leadership and justice for biology teachers. The results of this study are consistent with the research conducted by Heck and Hallinger (2010) which states that there is a positive relationship between instructional leadership and justice. In his research, it was stated that one of the factors that influence justice is instructional leadership and systems and policies that exist in the work environment.

The importance of the role of the teacher in carrying out instructional leadership in realizing the goals of education needs to be balanced with the ability of the school to establish values that lead to high levels of teacher comfort towards the school. This convenience can be formed by the existence of several factors including the state of the educational institution, support for learning activities, organizational climate, and the provision of justice in the school. Justice provisions are widely used to measure the level of work comfort, and consideration of provisions in work. Fair treatment is one of the requirements to support school effectiveness because the creation of a sense of justice can foster positive attitudes and behavior of teachers to support the achievement of educational goals (Milkovich *et al*., 2011).

The multiple correlation coefficient (rx_1x_2y) between School Climate (X_1) and

Instructional Leadership (X_2) together with Biology Teacher Justice (Y) is 0.593 meaning that there is a positive correlation with a fairly strong level of relationship (Riduwan, 2008). The data is in accordance with the research conducted by Gunes and Kale (2015) which examined the relationship between instructional leadership and organizational climate with elementary school teacher justice which showed that there was a positive and significant relationship between school climate and principals instructional leadership with Teacher justice.

Coefficient of Determination and Contribution

The calculation data obtained by the coefficient of determination (rx1y)2 of 0.243. These results indicate the School Climate variable (X1) contributes to the Biology Justice Justice learning outcomes (Y) of 24.3% while 75.7% is related to other factors. These factors can be in the form of leadership type, organizational behavior, rewards received by subordinates, level of trust in subordinates, managerial performance, or organizational culture (Farlin and Sweeney, 1992).

The coefficient of determination $(rx_2y)^2$ is 0.311. These results indicate that the Instructional Leadership variable (X_2) contributes to Biology Teacher Justice (Y) by 20.1% while 79.9% is related to other factors. These factors can be in the form of a school climate, system and policies in the work environment. organizational behavior, awards received, level of trust, managerial performance, or organizational culture (Farlin and Sweeney, 1992).

The coefficient of determination $(Rx_1x_2y)^2$ is 0.352. These results indicate the variable School Climate (X_1) and Instructional Leadership (X_2) together contribute to the Biology Teacher Justice (Y) of 35.2% while 64.8% is related to other factors. Thus the data obtained shows a significant relationship between school climate and instructional leadership with biology teacher justice. According to Greenberg (2003) Aspects of justice are very important in the school environment, because it creates satisfaction in work. If the teacher feels that what is received is in accordance with what they do for school, then the organization's justice can be said to be good, it can increase teacher motivation and performance in increasing school productivity. Whereas if the level of justice is low, it can lead to low teacher commitment and dissatisfaction at work. Thus the teacher will minimize the injustice in various ways that risk reducing performance, such as the behavior of delay in work, lazy to work even the desire to move to work (Riggio, 2008).

CONCLUSION

Based on the results of statistical data analysis as described in the previous chapter, it has been proven that there is a positive relationship between school climate and instructional leadership with teacher distributive justice. Likewise, by reviewing the regression coefficients in partial relations between each, the findings are as follows. (1) There is a positive relationship between the school climate and the existence of biology teachers in the State High School in Lebak Regency and contribute or contribute to distributive justice of biology teachers. (2) There is a positive relationship between instructional leadership and distributive justice of biology teachers in State High Schools in Lebak Regency and contribute or contribute to distributive justice of biology teachers. (3) There is a positive relationship between school climate and instructional leadership together with the distributive justice of biology teachers in State High Schools in Lebak Regency and contribute or contribute to distributive Biology justice teachers.

Based on these findings, it can be concluded that the school climate and instructional leadership have a significant relationship with teacher distributive justice. Therefore, to improve distributive

justice, there needs to be an increase in the school climate and instructional leadership.

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